

DELAWARE STATE MEDICAL JOURNAL

*Issued Monthly Under the Supervision of the Publication Committee
Owned and Published by the Medical Society of Delaware*

VOLUME 17.
NUMBER 8

AUGUST, 1945

Per Copy, 20c
Per Year, \$2.00

RURAL HEALTH AND ITS FUTURE*

EDWIN CAMERON, M. D.,**

Dover, Del.

Health education is directed to the promotion of health—personal and community—by calling attention to conditions which might affect the health in a manner to promote it, or to affect it adversely. Promotion of good health implies favorable environmental conditions. It also implies the provision of other essentials, namely: physicians, nurses, hospitals, clinics.

Environmental conditions have improved. We have fewer risks from milk and water-borne diseases. Standards of living have been raised. Protection from certain diseases has been successful. We have watched the mortality from certain diseases decline through the years.

Our well populated cities have what might be termed adequate facilities for the protection and maintenance of the public health. However, there are communities in the United States which are not within reach of hospital care, and many times not within convenient reach of a physician. There are approximately 1200 counties in the United States yet without any form of organized public health services.

It would appear, therefore, that rural health presents a serious problem—a problem which, if trends are of significance, will become even more serious.

A study** made by the U. S. Public Health Service of a 15-year period from 1923 to 1938 reveals that a gradual redistribution of physicians has been taking place. Since the period of study ends before the war, the present aggravation of physician, nurse and public health personnel shortage is excluded. For purposes of study, communities of three types were classified: large cities, with a population of 50,000 or more; small cities, with a

population of 2500 to 50,000; and rural communities, with a population less than 2500.

During the period of study there was a gain of 1/8 in the total physicians in practice, but the large and small cities gained 3/10 and 2/10 respectively of this total, while the rural communities lost 2/10 of their 1923 total. The significance of this transition is apparent in view of the fact that estimated population increases in these areas over the period were 1/5, 1/4 and 1/10.

The study further reveals that by 1938, 43,000 new physicians had opened practices in large cities, increasing by 66% the total physicians located in large cities at the beginning of the period, and that the new physicians opening practices in small cities and rural communities represented gains of 47% and 34% respectively over the physicians in those areas in 1923.

During the interval between 1920 and 1940 the average annual rate of population increase in rural areas has been .55%, while the rate of increase for urban areas has been 1.87%, or over three times that of the rural increase.

The ratios of physicians, nurses and hospital beds per 10,000 persons vary widely throughout the country. In one state the physicians per 10,000 persons was 7, while in another it was 17.5. Hospital beds varied from 14 to 65 per 10,000 persons.

Thirty years ago travel was an important factor in medical care. The horse and buggy doctor took as long to travel 10 miles as the doctor of today takes to travel 40 or more. The physician of 1945 can see many more patients per day and cover a much wider territory because of modern means of transportation and communication. However, should the trend to locate in urban areas continue, there is a distinct possibility that the ratio of physician to population may become so wide as to reflect in the rural health.

After all, there is every incentive to locate in urban areas. The per capita income is as a

*Public Health Reports, 66: No. 7 (Feb. 16) 1945.

** Executive Secretary, Delaware State Board of Health.

rule higher. The young physician has quite an investment in his education, and the prospects of amortizing his debts are better. He will in most instances have hospital facilities and professional association. He will have many more conveniences in the home and office, and good schools to which he may send his children.

Today there is legislation pending in Congress which, if passed, will certainly modify the present conception of medical practice. The legislation is directed primarily towards the provision of adequate medical care. The merits of legislation providing for insurance for medical care need not be discussed beyond saying that it must imply that medical and hospital care is readily available in order that the patient may get it! Rural areas will continue to be as devoid of medical care as at present.

Of all the plans advanced to date, none has taken into account the trend of the movement of the physician from rural to urban areas. It seems doubtful that any such plan can accomplish its purpose if the physician is omitted. The purpose is noble. It provides that medical care will be provided, and the physician paid—if the patient can get to the doctor or the doctor to the patient. Certainly it would appear that "convenience" must be somewhere contained within the definition of the term "adequate."

It is a noticeable fact that the hospital is a definite attraction in the choice of location by a physician. The Hospital Construction Bill—also pending in Congress—may to a degree alter the trend of physician movement. Briefly, the bill provides for assistance to communities for hospital construction or enlargement, where the need is shown, together with construction of Health Centers in smaller communities where general and special treatment will be available. It undoubtedly will provide more readily available hospital care, but here again it implies the presence of physicians and nurses. Will this attraction be sufficient to entice the physician to locate in rural communities and remain there? Or might the adverse economic conditions of many rural communities offset the advantage of the hospital in its attraction to the physician?

Public health must be concerned with the rural health problems. Good and adequate medical care is the backbone of public health. It is difficult to educate the public in the value of prenatal care if there are no physicians to give it. Communicable diseases must first be diagnosed before being controlled. In the field of sanitation we can promote a safe water supply for a community, but if it is improperly operated it can revert to as great a menace as the former supply. Similarly with milk—regardless of safety factors, the producer must be educated in the essentials that make his milk safe.

Public health and health education depend so much upon the accessibility of tools—tools which the public and the individual can reach, and use. Serious thought should be given to the problem of rural health essentials, because after all, the physician in the rural community is the "tool" upon which the education of the public, in matters of individual health, so much depends.

SCHOOL HYGIENE IN THE SCHOOL; ONE METHOD OF PRESENTATION

BERNARD ZUGER, M. D.,*
Del.

A health department comes into the field of social hygiene with several handicaps. It has become identified almost exclusively with the disease side of social hygiene. It must present before large groups a subject which particularly begs that it be shaped and modified for individual needs. It must give the material of social hygiene all at one time instead of in graded, developmental sequence.

In view of these obstacles it might well be asked why a health department should undertake any more of the content of social hygiene than it is functionally set up to deal with. No one will want to argue venereal disease out of its province or some aspects of school health. Why burden it with such subjects as, for instance, sex education?

The answer must be somewhat as follows. It cannot adequately operate in the province circumscribed for it if the neighboring and dependent provinces have not been taken up by the other agencies in the community.

The field of venereal disease may be taken

*Acting County Health Officer, Sussex County.

as a case in point. Before an adult audience the presentation of the problem of venereal disease offers no great difficulty. A simple and factual description of gonorrhea and syphilis, how they are contracted, their natural history, and the urgency for early diagnosis and treatment, should be sufficient. The adult has had considerable awareness and perhaps experiences with sex before this. The experience may have been "good" or "bad," "proper" or "improper." However he may be polarized toward that aspect of life, it is questionable how much influence the health worker with a casual talk can have on him.

The high school child presents an altogether different problem. Is it sound and fair to have sex associated for him with disease on the rare occasion that somebody in authority finally recognizes that he has grown up to become aware of it? And if his knowledge of sex, although perhaps considerable in quantity, is of the usual indiscriminate variety that clings to most growing boys—(and girls) should not some effort be made to clarify it before adding the frightening ingredient of venereal disease? Will a "simple" talk on venereal disease be sufficient for the girl frightened at the onset of menstruation or the boy scared out of his wits about masturbation or night emissions? Dispensing "accurate" information on venereal disease at such a time is like adding "good," "wholesome" gasoline to a house ready to catch fire.

Yet the problem of venereal disease is real and the high school age is the proper time to begin educating the child in that threat to health. Similar considerations hold for the high rate of illegitimacy among certain groups of the population, the problems growing out of which being of concern to a health department. Can the health department present its views on the subjects before boys and girls of high school age and come away without having hurt the more sensitive and inexperienced members of the group and helpful to the group as a whole?

In Sussex County in the last few months the following method of presentation of the subject has been adopted. Talks were planned for children 13 years and older. A short time before meeting the group, its members were requested by the principal to ask questions

about sex or venereal disease or any other subjects on health that they wished to have answered by a doctor. These questions were to be written out but were not to be signed. They were then sent to the health officer who would deliver the talk. The questions asked were many and they could be divided into the following categories: male physiology, female physiology, venereal disease, sex relations, and general health. In six of the seven schools where this method was used, the questions gave enough scope for the health officer to develop a fully rounded discussion of social hygiene with venereal disease occupying a place but by no means the dominant one.

The meeting with the group was made as informal as possible. The audience consisted of both boys and girls. With the health officer, and sitting next to him, was the local public health nurse assigned to that area, and in some instances, one or two other members of the health department. The purpose of this was to indicate to the children that the questions to be dealt with were real questions and held to be of importance; and that they should know that in addition to their own doctor and minister, the health officials of their community were also interested in their getting honest and accurate answers. It was felt that the public health nurse whom they had known for some time in school and in their homes should be freshly remembered as a source of good information and advice. In the course of the discussion she was often turned to for comments or extension of remarks. This helped to bring about an atmosphere of informality, and sometimes even of geniality and "lightness" in the group as a whole.

The talk was usually opened with a few general remarks on social hygiene, comparing it to any other category of human knowledge such as geography or history but with a subject matter that has to do with the way the individual lives his life so as to be himself happy and so as to make the community happy for having him among its citizens. The content of social hygiene is then briefly mentioned with the objective of removing at the very beginning the expectancy that the talk will deal exclusively with disease. When "personal health" is included in the content of social hygiene a digression is made on venereal dis-

ease. Because certain diseases were transmitted by sexual contact the emphasis had been mistakenly placed on their method of transmission rather than the fact that they were infectious diseases like any others they had had experience with. A few remarks are further made on the germ idea of disease and its immense importance in freeing the individual from the fear of mysterious forces which had previously been associated with disease. Just as they wouldn't hesitate to go to a doctor for other diseases, so there should be no hesitation to go to a doctor for venereal disease. To use patent medicines was to go back to the time when little was known about the nature of disease. The questions on venereal disease, in the language of the boy or girl who asked them, are then read and the answers given. The answers are short, held strictly to the point in question and honest. Emphasis is put on early diagnosis and treatment. It is the opinion of the writer that the pictorial presentation of venereal disease, at least before adolescents, is not necessary and may be harmful.

Some comment at this point is made on the fact that venereal disease need not be a part of the content of social hygiene but had to be dealt with to be gotten out of the way. The speaker next proceeds to other topics of social hygiene. Each subject is again introduced by the questions previously written out by members of the audience. Questions which are more or less alike are grouped together, but they are all read. The questions in the talks given up to now have usually allowed the development of the following ideas:

1. The sex element is evaluated in its total relationship to a man and woman. The love process is considered as the attainment to responsibility on the part of one person for the happiness of another, and the responsibility for any children that may be born. It is pointed out that along with sexual maturity emotional and mental maturity must also be reached.
2. The preparation of the individual for playing a part in the life of the community. Development of an interest in the activities of the community and

becoming a member of organizations available in the community.

3. Personal development for becoming interesting to oneself and to those about one—sports, dancing, reading, etc.
4. Acquisition of "tools" by the individual for making a living.

It has been the experience of the writer in presenting the material as outlined above that he has been able to cover the essential points of social hygiene and maintain good attention on the part of the audience. By having the questions come from the audience the whole talk is personalized and made close to it. Each boy or girl is interested because he or she feels that the questions came from someone in that class and therefore that the answers could not be far outside the compass of his or her own interest. The presentation of the subject is always guided by the realization that fear and anxiety aroused in some could be just as crippling as the diseases possibly ward off could be in others.

In the closing remarks the point is made that the questions in their minds on the subjects mentioned were real questions and worthy of their own respect. They should therefore use discrimination in the people they seek out to get answers to them. The doctor, the minister, the health worker in their community were the ones to approach and not the casual individual they might meet in the beauty parlor, the "juke joint" or even in the respectable home of their acquaintance.

*V-J DAY AND SOME LOCAL SANITATION ALONG THE DELAWARE RIVER

R. C. BECKETT, B. S.,*

Dover, Del.

Back in 1791 when Alexander Hamilton made his report on manufacturers the question of the pollution of our streams was not a very pressing problem, but one of his English friends however, traveling in this country, did refer to the highly objectionable character of the harbor of the city of Philadelphia, then a city of about 60,000 population. I wonder what that gentleman would

*Sanitary Engineer, Delaware State Board of Health.

think of the Delaware River today, by jove!

There was a time when the Delaware River shad led the American market, with the Chesapeake Bay trailing as a close second. I do not have the figures on the Delaware catches, nor the decrease since that time, but I do have them on the Chesapeake Bay and I find that the catch of shad has decreased from 48,000,00 pounds annually at its peak many years ago, to 8,000,000 pounds annually today. I would imagine the picture would be even worse for the Delaware River.

A former sheriff of New Castle County, Harry C. Clark of Delaware City, wrote some years ago a very interesting article in the *Wilmington Sunday Star*. Fifty years ago, he said, the streams of the Delaware River and Bay were teeming with sturgeon, shad, and herring. Sturgeon nets, usually one-third of a mile in length, could hardly be put in the water before the fishermen would have to begin taking the nets on the boat again, or they would find their net sunk with the weight of the sturgeon. Sturgeon weighed from 150 to 400 pounds each, and they were sold for from 50 cents to \$1 apiece. Often two sturgeon would furnish sufficient roe to make a 160 pound keg of caviar which would sell at \$8 per keg. These same sturgeon today would bring \$300 each, and the caviar would wholesale at \$300 a keg and would retail at the rate of \$1,000 a keg when it reached your cracker, at some costly cocktail party. Shad which were often sold as low as \$5 to \$6 per 100 fish sell now at from 20 cents to 50 cents per pound or \$3 per fish. On the Bay, men from Port Penn, Bowers Beach, Mispillion Creek, on the Delaware side, and Salem and Bayside on the Jersey side, all had their fleets of boats with hundreds of fishermen. John Cooney of Philadelphia, had the largest oyster fleet on the Bay. Hundreds of schooners and sloops and dozens of men, manning each boat, furnished Philadelphia and other large cities the finest oysters ever taken from any waters.

During the period which I have spent with the State Board of Health we have seen the shucking houses drop from 11 down to 2. One of our first jobs was to have the oyster shucking houses rebuilt according to modern conceptions of sanitation, and ten or fifteen years ago this industry was of importance to certain

towns in lower Delaware, but today the picture is entirely changed.

The Delaware Bay has always been associated with the oyster, and a stranger from another planet might consider Delaware Bay as a large oyster with its mouth wide open taking all the municipal and industrial wastes from the four states bordering the Delaware River. Is it any wonder that the oyster today has a different taste than many years ago? Oysters ordinarily are very quiet, but I can almost hear them say: "Why worry about the pollution problems on the Delaware River until the boys up above do something about the big shots—of pollution?" The oyster is probably right in his thinking.

The problem in Delaware is concerned primarily with the municipal and industrial wastes contributed to the river in the upper half of New Castle County. Wilmington is of course by all odds the greatest contributor of untreated sewage and this same sewage includes the bulk of the industrial wastes of the entire state. Certain other large industries are located north of Wilmington close to the state line, and the principal offenders in this case would be one chemical plant and one oil refinery. Under the schedule set up by the Interstate Commission on the Delaware River Basin, the city of Wilmington was to have installed primary treatment by January, 1943, and the cities and towns of New Castle, Bellefonte, Delaware City by January 1, 1945. The war has interfered with this entire program and consequently a new start has to be made.

Coming down the state and considering the towns that have outlets to the tributaries of the Delaware River, we encounter Middletown on the Appoquinimink River. Middletown has a population of approximately 1600 and has complete treatment. Clayton, population 1812, has primary sedimentation and discharges into Duck Creek which is a tributary of the Smyrna River, which is in turn a tributary of the Delaware River. Smyrna, population 1900, discharges untreated sewage into the Smyrna River. Dover, population 5700, has primary sedimentation plus separate sludge digestion and chlorination and discharges the same into the St. John's River. Milford, population 4200, has the same type

of treatment plant as Dover and discharges into the Mispillion River. Milton, population 1200, is without a public sewerage system. Lewes, population 2300, discharges untreated sewerage into a canal which finds its way out through the new inlet located halfway between Lewes and Broadkill Creek. Incidentally, Broadkill Creek was condemned as an oyster growing area, but on the opening of this new inlet, the sewerage which formerly went the length of the canal to the Broadkill is now sidetracked to the Delaware Bay, through this new inlet, and as a result the *B. coli* content of the Broadkill changed almost overnight. Rehoboth, population 1300 in the wintertime, has a much larger population in the summer and it also has complete treatment, discharging into Rehoboth Bay, which in turn discharges into the Atlantic Ocean.

In addition to the above there are certain industries which discharge wastes directly into the river. Most of these industries will be taken care of by the installation of interceptors in the city of Wilmington, although there will be some on the outskirts which will not be taken care of. Further down the state the pollution contributed to several of the tributaries of the Delaware consists primarily of canneries which operate not over two or three months during the year. The wastes from these are mostly tomatoes and should be considered subject to primary treatment.

Wilmington's problem is a large one and will involve the expenditure eventually of approximately \$5,000,000. The chief engineer, Mr. Maier, estimates that the first job to be done is the construction of the Brandywine interceptor sewer at an estimated cost of \$750,000, followed by certain changes within the city sewerage system to relieve certain combined sewers at several places, and this would entail approximately a half a million dollars. With the completion of these two stages the city would be ready then to go ahead into the interceptor and sewerage treatment plant phase which would cost approximately three and a half million dollars. I think the city officials and others are agreeable to these improvements, and there is decidedly more interest in such plans than at any time that I know of in the last twenty years. This is due to several causes, partly to the general im-

petus given to such work throughout the country, the expanding of industry and its need for satisfactory water supplies, and also to the very good work that is being done by the Interstate Commission on the Delaware River Basin in keeping this problem before the people at all times.

If we in Delaware can encourage the city of Wilmington to follow in line parallel with Camden and Philadelphia when they start their programs we will have solved 80 per cent of the pollution problem of the state of Delaware. The remaining communities where sewage treatment would be required to conform to the standards set up by "Incode," would be those of Smyrna and Milton. In the former case primary treatment plus chlorination would not be an insuperable burden, and the town of Milton is now considering a sewerage system, authorization having been obtained from the legislature to hold a bond issue and plans have been prepared for the system. This would include primary sedimentation plus chlorination.

I do not have to tell you that cleaning up of the Delaware, in so far as the state of Delaware is concerned, is predicated on the solving of the Camden-Philadelphia area and, I might say, the industrial area between the Delaware State line and Philadelphia.

The State Department of Health and its partner, the Sanitary Water Board, as well as the Interstate Commission on the Delaware River Basin have made significant strides in the last 10 months. This also applies to the state of New Jersey which is taking action against the city of Camden. To come back to the Philadelphia area, the recent Pennsylvania legislature appropriated \$5,000,000, to assist in the dredging out of the Schuylkill River, one of the sources of the Philadelphia water supply. It has been estimated that there are 21,000,000 tons of hard coal silt that over the years have accumulated in the river and particularly back of the old dams which form part of the canal system. Attempts will be made, and the War Department has agreed to recommend that the Federal government appropriate \$13,000,000 for this project also. In addition, the Sanitary Water Board of the State of Pennsylvania has issued orders that

old mines must be sealed to prevent the escape of coal mine wastes and that the operating company must install treatment plants to neutralize the wastes and to settle out in so far as possible the silt which is a concomitant part of coal production.

The city of Philadelphia has also been issued orders to proceed with its sewage treatment program, and just recently an ordinance has been adopted so that the first bond issue of \$8,000,000 may be placed before the public. Another important question which has now reached the higher court in Pennsylvania is the validity of the sewer rental law which will permit the construction of sewers and sewage treatment plants to be constructed and financed by the users of this system, whether domestic or industrial, and thus take this load off the real estate tax, which is the common way of financing such improvements. The sewer rental tax is considered by many all over the United States as the fairest way to assess such costs, particularly for sewage treatment.

I think it also should be borne in mind that there is the possibility of not only Federal aid but of state aid to the municipalities. It was suggested to certain state officials 12 years ago, but at this date it would probably have a better chance of acceptance, due to the experience that we have gone through in the thirties. In this manner all the state levels of government would contribute to the effort to remedy the conditions which all of us have an interest in. Not only are the citizens of the immediate cities and towns interested, but so are the state and Federal governments, for the Delaware is still a navigable stream, the states are still a part of the Union, and the stream is still used by the many peoples in the towns and cities bordering the main stream and its tributaries. The community of interests suggested above may run counter to certain interests and might tend to destroy certain viewpoints, but certainly this could not cope with the destruction caused in the river by the continued discharge of pollution by these same levels of government and by these same peoples. We are seeing an unparalleled destruction all over the world today and perhaps this section of mankind in this little valley may in the next 10 years

get a real kick out of restoring to somewhere near its former cleanliness a stream which certainly must have been a thing of beauty when your and my ancestors moved up this way some 300 years ago.

THE INCIDENCE OF PLURAL BIRTHS

CECIL A. MARSHALL, B. S.,*

Dover, Del.

Invariably the reaction of people to the occurrence of multiple births is surprise, excitement, or special admiration since they occur infrequently enough to make these people somewhat uncommon and since the act of their birth gives them unusual attention.

From wide observation it has been found that the frequency of multiple human births follows an apparent statistical "rule of 87." That is, in observing millions of confinements, twins have happened once in 87 births. Triplets once in 87² (87x87) or 7569 confinements, and quadruplets once in 87³ (87x87x87) or 658,503 confinements, and quadruplets once in 87⁴ or about 57 million confinements. The survival of these individuals is quite a feat as their hazards are great and are magnified according to the number of babies born at a single confinement. It is reported that of 70 sets of quadruplets born in the United States since 1920, only seven sets are now reported alive in all their numbers. In this country we observe from census figures that from 2 to 5 sets of quadruplets are born each year; however, their likelihood of being all born alive is small since stillbirths are relatively much more frequent among plural births than among single ones. With twins, for example, the stillbirth rate is about 2½ times that for single births, and for triplets 5 times as great. Although cases of quadruplets are too few to yield significant data, the chances of fetal death among them are without doubt much higher.

Being born prematurely is another serious handicap to the survival of multiple births. During the first year of life 20% of the mortality has prematurity as its cause, while during the first month close to 50% of infant deaths are caused by premature birth. During 1944 the rate of prematurity for single

* Statistician, Delaware State Board of Health.

births in Delaware was 43.7 per 1000 live births, while for twin births it was nearly $5\frac{1}{2}$ times as great, or 236.5.

The following table lists the number of sets of twins which have been born in Delaware for the past several years, together with the total number of live births in which figures they are included.

| Year | Total Births | Sets of Twins |
|------|--------------|---------------|
| 1936 | 3943 | 25 |
| 1937 | 4365 | 39 |
| 1938 | 4449 | 49 |
| 1939 | 4425 | 47 |
| 1940 | 4608 | 47 |
| 1941 | 5094 | 46 |
| 1942 | 5665 | 41 |
| 1943 | 6299 | 54 |
| 1944 | 6037 | 48 |

The frequency of occurrence of twins in this table of experience does not fit the expected from the general formula mentioned in the beginning of this discussion; however, the formula is based on a quantity of data involving millions of births. During 1942 in the United States there were 2,808,996 births; twins occurred on an average of once in every 95. For that year there were 291 sets of triplets. From our recorded experience we know of only one set of triplets which has been born in Delaware. They were premature and did not survive. Since we would expect triple births approximately every 8,000 births it would seem that more cases of triplets should be recorded in this State. However, since birth registration has been poor until recent years a reasonable expectation would be that such an event has passed unrecorded. From the annual number of birth figures we are not likely to have quadruplets born during a period approximating that of any one of our lifetimes since it would not be expected but once in a 100 years if during each year over 6,000 births took place—an annual record only recently attained during the past two or three years. It is plain to see why the Dionne children were so celebrated. Their birth and survival has placed them in a rare position in medical history, since they have hurdled the hazards of life for over 10 years. They are one of the natural wonders of the world.

P. S. Since this article has been written another set of triplets, not included in the above figures, has been born.

AREAS FOR RAPID PROGRESS IN NUTRITION

MARY T. DAVENPORT,*

Dover, Del.

The next two years will show the acceptance of the wide-spread nutrition information offered to the people of the United States.

The constant research in nutrition information stimulated by the war, the changes in marketing procedures, and the promotion services of food agencies, have brought great changes in the conception of nutrition over those held ten years ago.

The people of Delaware have been extremely fortunate in having adequate supplies of food available at all times. Adaptations have been made, some foods cannot be purchased and, rationing has altered our buying practices. At no time, however, have food stocks been so limited that an adequate diet was impossible.

What progress has been made? What progress may be expected?

The school lunch is one center for the promotion of good nutrition. This service reaches more people than can be met in any other field. School administrators and cafeteria managers are constantly finding ways of offering complete meals that are appetizing, nutritionally adequate and which can be served at a fair cost. Provisions are made to supply lunches free to children who cannot pay for them. Our animal nutrition information is accepted to a greater degree than is our human nutrition. There is no person who denies that the performance of work animals, the production of milk, beef, eggs and poultry, depends, to a great degree, upon the food fed to the animal.

Parental acquaintance, endorsement and suggestions are desired from all persons assisting in the school lunch program. In September and October a workshop for Delaware's school cafeteria managers will be held. Its aims are to provide new information and to try to alleviate the problems now confronting the managers.

A program of industrial nutrition is in progress. Repeated experiments have shown that the health, attitude, and production of any worker is improved if adequate food is available. The value of the "dinner pail" extends

*Nutritionist, Delaware State Board of Health.

from "excellent" to the other extreme of being a contributor to deficiency diseases. Much has been done to improve the quality of the carried lunch. Many industries are offering complete meals to their employees. Their problems lie in the education of the workers to select the food which provides the greatest nutrition value from money spent.

Child-feeding information is available to anyone desiring it. Doctors and nurses are ready to give assistance to ante-partum and post-partum cases. Regular check-ups of children, which include any feeding problems, are encouraged.

The remaining fertile soil then is the housewives, who are the meal planners, the food buyers, and the cooks. We find a general knowledge of nutrition has been accepted by these people. Their problems arise from lack of detailed information. A specific example of this is the distinction of whole from part grains, and the methods of food preparation which will retain the greatest amount of food value.

The responsibility of every person in a position to give health information is to know the dietary habits of those for whom he is caring and to try to make the necessary changes or additions to develop optimum nutrition.

WHY THE BOARD OF HEALTH IS CONCERNED ABOUT THE TOTAL PERSON

EUNICE USHER, M. S.,*
Dover, Del.

Frequently people wonder why the Board of Health needs to go beyond its functions of educating the community to its health needs, giving certain types of treatments, making recommendations, and protecting the health of the community. These people seem to forget for the minute that we cannot help people in one area if we refuse to consider the other incidents and influences which shape their lives. In Public Health we are concerned with large groups of people but again each member of the group has to be considered if we are to be successful. The people who have found security can accept the suggestions of the Board of Health; others are hampered by superstitions, by mores, fear of illness, lack of funds, inability to make decisions, or by

some other social or emotional problem and need assistance if they are to follow the recommendations of the public health services.

We feel that these suppositions can be demonstrated by some of the cases we have worked on with the nurses and doctors. One of the nurses noticed that Mr. B, an old tuberculosis patient, was beginning to get restless and decided to look further into the picture. This couple in their late fifties had always been independent and found it hard to accept relief funds and the restrictions it placed on their lives. The B's were most cooperative in following the suggestions of the Board of Health. The nurse learned that the relief agency had decided to withdraw their funds on the grounds that Mrs. B could work since her husband no longer needed bed care. Mrs. B did not know how to get a job, as she had never worked and realized that due to her own physical condition a sedentary job was imperative. Mr. B found it hard to allow his wife to be the bread winner. Here we interpreted the situation to the relief and employment agencies and gave the B's a chance to air their feelings. The relief agency did extend their aid until Mrs. B was established in a job. In this way the B's regained their place in the community and became contributing members of society despite their physical limitations.

In another family the public health nurse and social worker tried to help a family overcome their fear of the community so that they could accept the necessary medical care. The eight year old daughter, Doris who had a serious heart condition, needed convalescent care and the mother needed to have a fibroid tumor removed. The father's income was small and there were nine other children. The L's were afraid to let Doris go to the convalescent home for fear it meant giving her up to the state or that they were not good parents. A number of years ago an effort had been made to place some of the children in a boarding school since the father had so little money. This had upset the L's and made them fearful. They wanted to bring up their own children. After six or eight months during which time the nurse and social worker had been passively at work the L's asked to have Doris go to the convalescent home where she has done well. It is hard for them to have her away, but they

* Medical Social Consultant, Maternal and Child Health Division, Delaware State Board of Health.

manage. Mrs. L has had her operation through the cooperation of the surgeon, and a group in the community are providing her convalescent care. This was a simple thing and the nurse and social worker merely needed to be patient, to understand the family's feelings, and to let the L's solve their own problems in their way. The family had to recognize that we were interested in helping them and had no intention of assuming their responsibilities.

We have to watch how people react to their illness, as frequently one can figure out their feelings this way. For instance, shortly after a hospital admission four year old Betty, who had club feet, became a behavior problem. She was naughty purposely and with an air of bravado, was jealous of her new baby sister, and did not want to wear her braces. While Betty was in the hospital her father was inducted into the Army and the baby was born. Shortly after her return home the family had to live with grandparents for awhile, which increased the disciplinary problem. Betty's behavior was due to her feelings of insecurity and her idea that she was not wanted, hence she did everything in her power to attract attention. When the mother understood what was happening and that Betty was all right she was able to help Betty regain her feeling of being wanted and important. Betty has had to be readmitted to the hospital for a short time and was able to accept this without difficulty. In order to increase her security the hospital gave her permission to take her favorite doll with her instead of giving her or insisting that she bring a new one for whom she had developed no feelings. In this case, unless the family had felt the nurse was interested in them and their daughter, the problem might have been missed. The early discovery and recognition of the meaning of this behavior by the nurse made it possible to work through the situation more quickly and with less trauma to the child.

Through our Services to Crippled Children we have learned how closely we need to work with the Board of Education. When there is no way for these children to receive an education, they become depressed and our medical help is less effective. There are twenty-seven children needing special instruction in the

state, and only one city and one town have ways of meeting this situation. Volunteer teachers were secured in one area and did good work. We were surprised to see how much this meant to the individuals concerned. For example, the C's had decided not to allow their son's foot condition to be remedied. John could not keep up with his friends and was shy and withdrawn. He hung his head and rarely spoke. The C's spoilt John and could not see the importance of allowing him to become independent. However, the C's welcomed the idea of a tutor for John. This tutor had to start in slowly but soon changes occurred in the home. John was brought to the clinic and he was taken to the eye doctor. He became talkative and finally his big brown eyes sparkled in a lively fashion when he told us what he had done. The C's were able to see that the nurse, social worker, and tutor wanted to assist them and would listen to their problems. The C's were able to express their doubts about operations and that John would imagine they had put him away. At the end of a year the C's suggested that John be admitted to the hospital, almost two years after the original recommendation. The tutoring of John helped the family see that there was no need for their son to be isolated, as he could take his part in the world. It was a ray of hope which made it worth their while to risk the operation.

We have also found it necessary to remember that recreation has to be considered as an integral part of everyone's life. The youngsters with cerebral palsy seem to become more conscious of their differences when they reach adolescence. The boy and girl problem arises. In two instances clubs have been organized for these youngsters. The effects of the clubs are interesting. The physically normal children learn with open minds that being crippled does not mean you are incapacitated. They are delighted to see that the physically limited children have the same interests and desires as they do. This acceptance by physically normal children gives the so-called handicapped youngsters courage to carry on despite the hurdles in their path. They learn that it is the kind of person they are that counts; not their game leg or shaking arms. They see that they need not remain isolated but can mingle

with physically normal people and share in the life of the community. One of the important lessons these children learn is that they can help their friends. This experience makes it easier for their parents to allow them to be independent and to overcome their fears of the future of these children.

Thus we see that since public health deals with human beings, who are dynamic living entities, one must consider the total person to achieve the goals of the service. There are no rules of thumb to follow, so the Board of Health needs to be wide awake and flexible to recognize the needs of the people it serves. The various staff members act together and according to the situation at hand. Perhaps the easiest way to picture this is to think of each person's life as a piece of handwoven fabric. Unless each thread is woven correctly the material will fall apart. We need to recognize, see, and understand the patterns of each individual if we are to achieve the goals of public health.

COMMUNITY EDUCATION FOR HEALTH

KATHARINE B. FRANKLIN, B. S.,*
Dover, Del.

That health is a universal need of man is acknowledged by every intelligent person but never has the motivation for positive health been stressed, and the desire popularized, to the same degree as has the human need for wealth and happiness. Yet it is trite to even mention that enjoyment of the latter two are largely dependent upon the former, and that a man's main capital in life is his health.

But beyond the care of illness by doctors, nurses and hospitals; of public health work like clinics, sanitation procedures and pure milk and water supplies; and the activities of a few organizations interested in special diseases like tuberculosis and cancer—what are Delawareans, as a whole, doing about health?

Is it possible to interest a state, community by community, in its own health needs?

Pennsylvania thinks that such a program *IS* possible and will begin this fall with health councils organized for the purpose of facilitating the correction of the physical defects discovered by their new 4 million dollar

health examination program to be carried on in the Commonwealth's schools.

Our neighboring state is having health examinations this fall in grades 1, 3, 5, 7, 9 and 11 of its public schools—thorough examinations by doctors and dentists, the cost to be borne in a large part by the state. But they do not believe that regular physical *EXAMINATIONS* are enough. Defects must be followed up and corrected. Accordingly, health councils are to be organized. This will be done by school superintendents or principals asking each service club and other organization (both men's and women's) in the school district to appoint a person to serve on the council—people who are really interested.

The aim is to stress the need for correction and, where possible, stimulate parents to have their own family physician and dentist care for the defects found. However, where parents are medically indigent, or are too indifferent to look after the needs of their offspring, the council will try to have the defects corrected through community action.

Pennsylvania is heeding the warning of the now oft-repeated figures of Selective Service, namely, that out of a group of 13,000,000 men examined by the Boards 4,000,000 were 4-F, a 30% rejection rate, or 4 out of every 13 men unfit to serve their country. The tragedy, as we all know, is that so many of the defects found now in the men would have been readily correctable in childhood.

Our Delaware legislature has authorized no appropriation for examination of school children and we do not know that it ever will, but it takes no special legislative action to help our towns consider the health needs, not only of our children—in order that they will not grow up to be 4-F's on the home front—but to consider the health of *ALL* our Delaware people.

It was Voltaire who said that "men who are occupied in the restoration of health to other men, by the joint exertion of skill and humanity, are, above all, the great of humanity."

But prevention is far better than cure. Good health is a community's most valuable asset, but no community can be healthier than the sum total of its people. How, then, can

* Director, Division of Public Health Information, Delaware State Board of Health.

we help people to realize their own health needs and to *desire* the enjoyment of optimum health?

Post-war planning is being done now in almost every field and we would like to suggest that it can, and should, be done in the field of community health.

True that doctors are still scarce in many sections of the state and that they have little time now for adding extra activities to already over-crowded schedules. But the war is over, doctors from overseas are returning and it is well to look ahead as to what can be done in the field of health education—preventive medicine.

RECENT POLICY OF ORGANIZED MEDICINE

The Medical Society of the State of New York, in a recent article discussing the organizing of local activities, suggests that often the president or secretary of the county medical society can start to do the organizing on his own initiative without much red tape or formality.

In the article, Dr. Floyd S. Winslow, chairman of New York's Council on Medical Publicity, continues: "Later, a special committee of not more than three members may be named to whom is especially delegated the work of handling a county speakers' bureau. They should be men who are interested in discharging the obligations which devolve upon them as persons who occupy positions of leadership, and who are *willing* and *able* to devote time to the details of an important, if recent, development in the policies of organized medicine."

The New York State Society even has a public relations bureau which will send its members suggestions for assisting them in appropriately commenting on quasi-medical matters of timely public interest in the course of their usual day-to-day contacts at club, church, or elsewhere. The service also provides subjects for talks before groups or over the radio, with outlines of speeches, and samples of completed talks. These include topics which will interest certain groups on special occasions.

Some time ago the Delaware Academy of Medicine held some excellent public medical forums in their auditorium, with a number of

Wilmington's outstanding physicians as speakers.

In telling the public about these proposed meetings through the press Dr. William H. Kraemer, president of the Academy, said: "The Academy of Medicine believes that the public has a sincere interest in learning more of preventive medicine, more of health conservation on the home front, of practical ways to utilize with maximum effectiveness the limited supply of physicians, dentists and surgeons serving community medical needs. The Academy now invites questions from the public—questions which a panel of discussers will attempt to answer at the open meeting."

The forums were held and many doctors who are authorities in their fields gave of their time and spoke at the meetings, presenting valuable information. Those who attended (and the writer was one of the guests) thoroughly enjoyed the meeting. Yet it seemed a pity to have so much wisdom gathered in one room and not have it being of help to more people.

The Academy is a very attractive building but its location is a bit off the beaten track for the lay public. Perhaps similar forums held downtown, possibly in the auditorium of the Wilmington Institute Free Library, might reach more people who need the kind of medical information that such a forum brings.

Or perhaps these same doctors might be willing to be part of an "Academy of Medicine Speakers Bureau," similar to the New York State plan, and agree to talk at, say two meetings per month, bringing health subjects to groups which have gathered for other purposes as well. Examples are meetings of men's and women's service clubs, labor groups, women's clubs, parent-teacher associations, etc.

Similar speakers bureaus could be organized through the county medical societies to serve similar groups in the counties.

The writer would like to further point out the need for this type of service by quoting from the Medical Society of Delaware's own Committee Report on Postwar Plans in which the chairman, Dr. M. A. Tarumianz, says the definite policy of the Committee is that "sound health is the business of every citi-

zen and the prerogative of progressive people and that such can be achieved only through the help of organized medicine."

The Public Relations Committee of the New Castle County Medical Society made an excellent step in the direction of public health information when they obtained the radio series prepared by the Bureau of Health Education of the American Medical Association entitled "Keep Cool" with transcriptions on a dozen timely subjects including "Sunstroke and Heat Exhaustion," "Poison Ivy," "Water Safety" and "Hay Fever." These have been broadcast over WDEL on Tuesday and Thursday mornings for a six weeks period this summer. Each transcription was a 10 minute interview of W. W. Bauer, M. D. by June Merrill.

Dr. Bauer, Director of Health Education for the A. M. A., stated in a recent lecture that "sustained programs of powerful advertising sell Listerine—they will also sell health education." He also pointed out that one cannot evaluate a health education program on a short time basis, that it may take years to change people's thought patterns and habits but that health education is effective when progress toward more satisfactory conduct is made.

In Delaware during the past two decades, doctors, nurses, and public health personnel have been doing more and more health education work, both directly and indirectly, and statistics show the improvement in maternal and infant mortality. In those twenty years the maternal mortality has dropped from 7.8 per 1,000 to 1.7, and the infant mortality from 91 per 1,000 live births to 49.4 per 1,000 last year, while deaths from diarrhea and enteritis in infants under 2 years of age has dropped from 37.9 to 17.5 per 100,000.

Of course part of the reductions noted above are due to advances in knowledge of the medical profession, to new drugs, improved sanitation methods and such procedures as the pasteurization of milk, but health education has played its part.

Last year 1,018 people died from heart disease in Delaware, 335 from cancer and 123

from tuberculosis. Such figures can surely be reduced if we redouble our efforts to make the public understand the need for physical examinations and early treatment and care for these and other diseases. Far too many people now wait until they are slowed up or incapacitated before they will seek their doctor's advice, as all physicians are well aware.

The brochure entitled "Democracy Means ALL of Us," published by Community Services, sums up as follows various points that every community program must have in order to be successful:

1. Meet a real, definable need or needs.
2. Have community interest and approval.
3. Include all people naturally concerned.
4. Relate itself acceptably to other existing community programs, organizations and agencies.
5. Evolve under the guidance of a central, representative planning group.
6. Report back, regularly, to the community.

These points seem well taken when one relates them to teaching health. But when we consider teaching, let us not think only of speakers. Most people are said to be more visual-minded than aural-minded, and the Army and Navy's outstanding demonstrations of new educational methods include the use of auto-visual aids, such as motion pictures, a technique which has speeded up the learning process and made the information *STAY* learned for a longer time.

In working for well-rounded community health programs where the Medical Society is furnishing a speaker, it may be possible for the State Board of Health's Division of Public Health Information to loan a film on the subject under discussion or supplement the speech with leaflets, exhibits or posters.

This Division's job is the promotion of health education in Delaware, and any assistance desired by the medical profession will be gladly furnished, whenever possible, by the Director.

THE TEACHING FUNCTION OF THE PUBLIC HEALTH NURSE

MARY M. KLAES, R. N., B. S.,*

Dover, Del.

One of the first things that a nurse learns when she enters the field of public health nursing is that the aim of public health is the prevention of illness and the promotion of health. Usually this objective presents a new viewpoint for the nurse who has been caring for sick people in hospitals. She, who had become used to doing things for the patient, finds it rather difficult at first to realize that the nurse also has a real function in helping people to assume responsibility for their own health.

This does not mean that we dare minimize the importance of nursing care for ill persons, but rather that the concept of the prevention of illness and the promotion of health is the logical result of the enormous strides in preventive and diagnostic procedures of recent times.

Teaching in public health is an important part of the nurses' function. One can't just go out and say: "Now today I'm going to specialize in teaching disease prevention and health promotion." Rather, health teaching should be an integrated part of all the public health nurses' activities. It may be accomplished by group teaching or by individual contact.

The Delaware State Board of Health offers many services to the public in all parts of the state, and it is part of the duties of the public health nurses to help people to learn to use these services. Many kinds of people, in all walks of life, are served by the State Board of Health. Most of the patients in the tuberculosis clinics have been referred to the clinic by their physicians; some of the patients are diagnosed patients, or are contacts of tuberculous patients. Many patients attend the venereal disease clinics. Crippled children and their parents are seen by the orthopedic consultant in regular scheduled clinics. Infants and preschool children are brought to the child health conferences for health supervision. Classes of instructions are conducted for prenatal patients and also for midwives.

It has been said that patients' interests fall into two categories—their need for under-

standing, and their need for information. It is to meet these needs that individual conferences between every patient and one of the public health nurses are held in nearly every instance. In addition to these nurse-patient conferences in the clinics, visits are made to the homes of clinic patients.

The writer will mention just three of the many situations in which teaching by the public health nurse is indicated: 1. A tuberculous patient and his family need to learn about the nature of the illness, isolation techniques, the importance of periodic physical examinations of persons who are in contact with the patient; and the tuberculin test and its significance needs to be explained to the parents of children to whom the test is administered. In most cases, nutrition information is also needed. 2. The young mother who brings her infant to the child health conference frequently needs to understand the doctor's recommendations concerning the infant's diet; formula preparation is shown the mother in her own home by one of the public health nurses; and the advisability of early immunizations against communicable disease is explained to the mother. 3. The crippled children's clinics also offer opportunity for health teaching. The psychological effects of crippling, not only on the patient himself, but also on the attitude of the patient's parents and his brothers and sisters, must be considered by the nurse so that she can help both the patient and the family to accept the medical treatments and to make a good adjustment to the situation. Often parents of crippled children do not realize that the patient is in danger of being over-protected, and that he must be allowed and encouraged to achieve independence and a sense of accomplishment. The public health nurse knows the social agencies of the community and is able to help patients and families to apply to these agencies.

There are, of course, many other kinds of situations in which the teaching function of the public health nurse is important, but there are certain factors which must be considered in all health teaching. First, and foremost, the nurse must remember that it takes more than one person to make teaching effective; it is a relationship between the nurse and the

*Director, Nursing Division, Delaware State Board of Health.

+ Editorial +

DELAWARE STATE MEDICAL JOURNAL

Owned and published by the Medical Society of Delaware, a scientific society, non-profit corporation. Issued about the twentieth of each month under the supervision of the Committee on Publication.

W. EDWIN BIRD, M. D. Editor
822 North American Building

W. OSCAR LA MOTTE, M. D. Associate Editor
Medical Arts Building

M. A. TARUMIANZ, M. D. Assoc. & Managing Editor
Farnhurst, Del.

Articles are accepted for publication on condition that they are contributed solely to this JOURNAL. Manuscripts must be typewritten, double spaced, with wide margins, and the original copy submitted. Photographs and drawing for illustrations must be carefully marked and show clearly what is intended.

Footnotes and bibliographies should conform to the style of the Quarterly Cumulative Index Medicus, published by the American Medical Association, Chicago.

Changes in manuscript after an article has been set in type will be charged to the author. THE JOURNAL pays only part of the cost of tables and illustrations. Unused manuscripts will not be returned unless return postage is forwarded. Reprints may be obtained at cost, provided request is made of the printers before publication.

The right is reserved to reject material submitted for publication. THE JOURNAL is not responsible for views expressed in any article signed by the author.

All advertisements are received subject to the approval of the Council on Pharmacy and Chemistry of the A. M. A. Advertising forms close the 25th of the preceding month.

Matter appearing in THE JOURNAL is covered by copyright. As a rule, no objection will be made to its reproduction in reputable medical journals, if proper credit is given. The reproduction, in whole or in part, for commercial purposes, of articles appearing in THE JOURNAL will not be permitted.

Subscription price: \$2.00 per annum, in advance. Single copies, 20 cents. Foreign countries: \$2.50 per annum.

VOL. 17

AUGUST, 1945

No. 8

POLITICAL TECHNIC IN CHILD WELFARE ACT CRITICIZED

Senator Claude Pepper and nine other members of the Senate Committee on Education and Labor have introduced a bill (S. 1318) to provide for the general welfare by enabling the several states to make more adequate provision for the health and welfare of mothers and children and for services to crippled children. It provides also for an increased personnel of the Children's Bureau necessary for administration.

As with much other legislation for social welfare, few would oppose the objectives sought, namely promotion of the physical and mental health of mothers during maternity and of their children, preventive health work and diagnostic services for children school health services, the care of sick children and the correction of physical defects. The allotment of federal funds to the individual states is now a well established principal in our gov-

ernment. The public has a right to ask that need be established before funds are allocated. The wisdom of placing control in the Children's Bureau through insistence that plans must be approved by the chief of that bureau before funds can be granted is subject to doubt. The chief of the Children's Bureau is to formulate the policies after consultation with the state health officers and an advisory committee. Nothing in the act says that the advisory committee is to have any authority or that its advice need necessarily be followed. *The Journal* has previously criticized adversely the political technic which permits the chief of a government bureau to select his own advisory committee and then even to disregard the advice of the committee that he himself selects.

In submitting the bill, Senator Pepper offered some interesting estimates. Thus he said:

"Medical care and health supervision of children is costly in dollars. Reliable authorities estimate it comes to somewhere in the range of \$25 to \$40 a year for each child in the United States. With 40,000,000 children under 18 that represents a total of at least \$1,000,000,000 for the country. A federal appropriation of \$75,000,000 for maternal and child health and for crippled children for a year cannot go very far in meeting these all-over health needs of children."

Almost coincidentally with the offering of this proposal came an announcement in the press indicating that Secretary Schwellessbach of the Department of Labor desired to see the Children's Bureau removed from that department and possibly incorporated in a new department of the government to be devoted to health and welfare. Whether or not President Truman, in his apparent wish to consolidate government agencies, will suggest the establishment of a new department in the cabinet to include the Children's Bureau, that agency long since should have been integrated with the other health activities of the nation.

JAMA, Aug. 11, 1945.

CONSTRUCTIVE PROGRAM FOR MEDICAL CARE

AMERICAN MEDICAL ASSOCIATION

This platform was adopted by the Council on Medical Service and Public Relations and the Board of Trustees of the American Medical Association on June 22, 1945.

Preamble

The physicians of the United States are interested in extending to all people in all communities the best possible medical care. The Constitution of the United States, the Bill of Rights and the "American Way of Life" are diametrically opposed to regimentation or any form of totalitarianism. According to available evidence in surveys, most of the American people are not interested in testing in the United States experiments in medical care which have already failed in regimented countries.

The physicians of the United States, through the American Medical Association, have stressed repeatedly the necessity for extending to all corners of this great country the availability of aids for diagnosis and treatment, so that dependency will be minimized and independence will be stimulated. American private enterprise has won and is winning the greatest war in the world's history. Private enterprise and initiative manifested through research may conquer cancer, arthritis and other as yet unconquered scourges of humankind. Science, as history well demonstrates, prospers best when free and unshackled.

Program

The physicians represented by the American Medical Association propose the following constructive program for the extension of improved health and medical care to all the people:

1. Sustained production leading to better living conditions with improved housing, nutrition and sanitation which are fundamental to good health; we support progressive action toward achieving these objectives:

2. An extended program of disease prevention with the development or extension of organizations for public health service so that every part of our country will have such service, as rapidly as adequate personnel can be trained.

3. Increased hospitalization insurance on a voluntary basis.

4. The development in or extension to all localities of voluntary sickness insurance plans and provision for the extension of these plans to the needy under the principles already established by the American Medical Association.

5. The provision of hospitalization and medical care to the indigent by local authorities under voluntary hospital and sickness insurance plans.

6. A survey of each state by qualified individuals and agencies to establish the need for additional medical care.

7. Federal aid to states where definite need is demonstrated, to be administered by the proper local agencies of the states involved with the help and advice of the medical profession.

8. Extension of information on these plans to all the people with recognition that such voluntary programs need not involve increased taxation.

9. A continuous survey of all voluntary plans for hospitalization and illness to determine their adequacy in meeting needs and maintaining continuous improvement in quality of medical service.

10. Discharge of physicians from the armed services as rapidly as is consistent with the war effort in order to facilitate redistribution and relocation of physicians in areas needing physicians.

11. Increased availability of medical education to young men and women to provide a greater number of physicians for rural areas.

12. Postponement of consideration of revolutionary changes while 60,000 medical men are in the service voluntarily and while 12,000,000 men and women are in uniform to preserve the American democratic system of government.

13. Adoption of federal legislation to provide for adjustments in draft regulation which will permit students to prepare for and continue the study of medicine.

14. Study of postwar medical personnel requirements with special reference to the needs of the veterans' hospitals, the regular army, navy and United States Public Health Service.

CLINICAL CASES FROM THE HOSPITALS

OCCULT HEMOCHROMATOSIS

O. J. POLLAK, M. D., Ph.D.,*
Wilmington, Del.

INTRODUCTION

Hemochromatosis is a disease characterized by extensive deposits of two pigments, hemosiderin and hemofuscin, in the majority of the organs, especially in the liver, spleen and pancreas. In the liver the amount of pigments is so extensive that the size of the organ is usually considerably increased and its color changed to an orange-brown. The spleen and the pancreas, likewise, may be enlarged; their color, however, is normal. The other organs, with the exception of the brain, show microscopic deposits of the pigments. The skin of a patient with hemochromatosis is brown, especially where the skin is exposed and in folds.

In eighty per cent of patients the changes in the pancreas are associated with diabetes mellitus: The disease is frequently, but falsely, called bronzed diabetes. The changes in the liver are commonly followed by circulatory disturbances such as seen in portal cirrhosis. The vast majority of patients with hemochromatosis die as a result of diabetes or of some of the complications from the liver condition.

The clinical and postmortem findings in our patient differed considerably from this typical picture.

CASE REPORT

A 50 year old white woman was admitted to the Wilmington General Hospital, service of Dr. Clyde Neese, in a semi-comatose stage. The family history and the past history of the patient were entirely negative, except for the history of syphilitic infection acquired from the patient's husband. The patient had just entered menopause and had missed three catamenias. Only four days prior to admission, the patient experienced a dizzy spell which left her very weak. One day prior to admission, after vomiting, the patient com-

plained about pain in the lower abdomen and soon afterwards fell into a semi-comatose state.

On physical examination, the patient's skin was cold, the breathing was deep, the pupils were narrowed to a pin point, the normal reflexes were feeble, and there were no abnormal reflexes. The rest of the physical examination presented normal results.

Upon admission, the patient had a red blood count of 4,550,000 cells per cu.mm, a hemoglobin value of 13Gms, a white blood count of 9,000 cells per cu.mm. The hemogram showed a marked shift to the left with 9 % metamyelocytes, 62% stab cells, 11% mature neutrophils, 14% of lymphocytes, and 4% of monocytes. The carbon dioxide combining power of the blood equaled 13 volume per cent, the blood amylase was 156mg per cent, the blood urea nitrogen was 17mg per cent. The first blood sugar equaled 476mg per cent, the next values during the first day were 476 and 400mg per cent, respectively. After intensive insulin therapy, the blood sugar level dropped during the next day to 222mg per cent but increased to 268mg per cent and finally to 344mg per cent. Before death, the blood sugar value was again 416mg per cent. The urine showed a positive reaction for albumin and a strongly positive test for sugar. In the urine sediment were some hyalin casts and many coarse, granular casts. Seroreactions for syphilis were positive.

During hospitalization, the patient never recovered from the semi-comatose state. The temperature of her skin improved and so did her breathing. On the second day the patient vomited some greenish fluid, developed, suddenly, pulmonary edema and expired in spite of intensive treatment with cardiacs.

Permission for a postmortem laparotomy was obtained: The autopsy had to be confined to a five-inch long abdominal incision. The outer inspection of the body did not reveal anything of importance. The patient was obese. Her skin was mostly pink; only that of the extremities was a mottled purplish. The visible mucous membranes were pale. The finger nails were slightly bluish. The lungs weighed, combined, 1700 gms, and an

* Pathologist, Wilmington General Hospital.

abundance of clear fluid poured from the pulmonary tissue and the bronchi. The heart weighed 330 gms; its transversal diameter was 13cm; the right ventricle was dilated, its wall thin; the tricuspid valve was wide open. The other parts of the heart were normal. The aorta showed some small, isolated, elevated patches, especially around the origin of the branches and a few longitudinal scars. The spleen weighed 100 gms and appeared grossly normal. The capsule was gray, smooth, and the consistence was soft; there was a normal amount of dark red pulp. The liver weighed 1500 gms, was normally sized and shaped and had a smooth, reddish-brown surface and cut surface, a slightly obscured architecture and a normal consistence. The pancreas appeared normal in size and shape, had a lobular structure and a pink color; its consistence was firm, and the pancreatic duct was patent. The gastro-intestinal tract appeared normal and so did the adrenals and the reproductive organs. The kidneys were large and each weighed 170 gms; the capsule stripped easily and revealed a smooth, reddish-brown surface. The section showed normally outlined structures with reddish discoloration of the outer rim of the pyramids. The basic color of the cut surface was reddish-brown with a yellowish tinge. The pelvis and lower parts of the urinary tract appeared entirely normal.

The gross anatomical diagnoses were: acute cardiac dilatation due to pulmonary edema; clinical history of diabetic coma.

The microscopic examination of the lungs revealed extreme edema characterized by swollen septi and widened alveoli filled with fluid and albuminous matter. The liver showed some fatty infiltration; a very slight increase of interlobular, connective tissue and diffuse deposits of pigment granules. The lobular markings were quite distinct. The spleen showed diffuse congestion especially of the sinusoids and an abundance of pigment granules diffusely scattered throughout the tissue and especially in the sinusoids. The Malpighian bodies, trabecules, and the reticulum appeared normal. The pancreas showed lobules separated by fatty tissue. The number of islands was extremely low, and

no more than one islet per field could be detected by low power examination of the slides. The islets were small and only about one-fourth to one-third of the original island space was occupied by beta-cells. The kidneys showed marked cortical congestion and the typical picture of lipoid nephrosis.

The large amount of pigment discovered in routine preparations stimulated further examination for their differentiation. In the Kupffer cells and also in the hepatic cells there was a large amount of hemosiderin which because of its iron content gave the typical Prussian blue reaction. In the hepatic cells and in the wall of the blood vessels, there was a second, yellowish-brown, iron-free pigment, hemofuscin. The spleen showed equal amounts of both pigments diffusely scattered and especially concentrated in the sinusoids. The hemosiderin was more coarse and often in small clusters; the hemofuscin was of much finer grain. The pancreas showed less pigmentation than the liver and the spleen, and there was a slight predominance of hemosiderin. The pigments were in the interlobular connective tissue and perivascular spaces. A moderate amount of pigment was found in the kidneys and adrenal cortex. The sections of the lungs presented an interesting picture with hemosiderin, hemofuscin and the black anthroctic pigment apparent in the same fields of vision. Trimings of tissue blocks submerged into a mixture of hydrochloric acid and potassium ferrocyanide turned dark blue. The color change was uniform and complete in the liver and spleen, patchy and not as intensive in the pancreas, pleurae and lung, and streaky, mostly cortical, in the kidneys.

DISCUSSION

Due to the absence of bronze discoloration of the skin and the lack of liver and spleen enlargement, hemochromatosis could not be considered in the clinical differential diagnosis. An examination of splenic puncture material for hemosiderin would have revealed the presence of the pigment in this organ and would have led to the correct diagnosis. There was, however, not the slightest indication for such procedure.

At autopsy, the correct diagnosis was, likewise, impossible as there was neither enlargement, ochre coloring, induration of the liver, nor splenic or pancreatic enlargement. For that reason, the all-important quantitative iron and copper estimations in the liver tissue were omitted. In typical cases, the amount of iron is increased more than 10-15 times, the amount of copper 4-5 times. The microscopic findings were fairly typical of hemochromatosis. The presence of both pigments, and the distribution in all examined organs, with predominance in the liver and spleen, corresponded to findings in classical case reports. The absence of more severe microscopic alterations of the liver and the absence of gross changes of the abdominal organs and of the skin pigmentation was most likely due to the fact that our patient had an initial phase of hemochromatosis.

The sudden development of a diabetic coma which led to the patient's death was due to the combination of hemochromatosis with a hypoplasia of the islands of Langerhans. The small number and size of islets was not due to destruction and replacement by pigment-containing connective tissue but was apparently a primary phenomenon independent of hemochromatosis.

SUMMARY

This is a report of hemochromatosis diagnosed by postmortem microscopic studies. The simultaneous existence of hypoplasia of the pancreatic islands led to diabetic coma and rapid death.

MISCELLANEOUS

Peace!

THE JOURNAL humbly and devoutly agrees that "thanks be to God which giveth us the victory." Won at high cost in precious lives and earthly treasures, the victory is but a pause in the struggle of mankind for sustenance and power that has gone on for untold centuries. In the last 3500 years of recorded human history there has been war, somewhere

on this globe, for 3350 years. What an amazing spectacle, and what a disgusting indictment of the human animal! Is regeneration of the beast really possible? Does he really want permanent peace? Will he work conscientiously to attain it? What with atomic power and other hideous means of compulsion already at hand, do the next 3500 years look any more promising than the past 3500? Think it over—write your own answer. But, for a while at least, rejoice with THE JOURNAL that peace, at long last, is here again; may it remain, at last, long.

THE JOURNAL presents in this issue the sixteenth State Board of Health Number. These excellent articles can be appreciated fully only by a careful reading. Our sincere thanks to Dr. Cameron and his staff for their excellent presentation.

The Teaching Function of the Public Health Nurse

(Continued from Page 162)

person being taught. Secondly, there is a need that is known either to the nurse or to the patient to be taught. Sometimes, the person is unaware of the need and it is the nurse's function to acquaint her with it. Sometimes, however, the person seeks the nurse for help or advice. Thirdly, the nurse must be qualified to give advice; she must know what she is teaching or know the sources where she can get the desired information or help. Fourth, she must present her teaching to fit the individual; the manner depending upon the intelligence, interest, racial background, etc., of the person being taught. Lastly, the nurse must always remember that she is working with individuals whose emotions and view points often differ from her own. Therefore, she must avoid imposing her teaching and must remember that the real meaning and root of the word "education" is "to lead". It has been rightly said that the final measure of the public health nurse's success is not only her ability to make her message clear, but to do it with such skill that the desired measures are not only understood, but put into action.

OBITUARY

HOWARD E. LECATES, M. D.,

Dr. Howard E. LeCates, 57, physician of Delmar, was killed instantly on July 20, 1945 beneath the wheels of a southbound Pennsylvania Railroad passenger train one mile north of Delmar.

Troopers said Dr. LeCates leaped in front of the passenger train. A note, signed Howard and addressed to his wife Jean, was found in his car, parked near the tracks.

The body of the physician was badly mangled. Part of it was found more than 500 feet from the place his hat was found. Troopers said that after he left his car, Dr. LeCates waited for a freight train to pass and then jumped in front of the passenger train.

Near the point where Dr. LeCates' body was found was an old revolver containing five bullets. The trigger had been pulled but the revolver misfired.

Dr. LeCates was born near Laurel in 1888 and received his M. D. from the University of Maryland in 1913, and was licensed in Delaware in 1915.

He had been a practicing physician in Delmar for 26 years. He was also physician for the Pennsylvania Railroad, member of the Delmar Library Commission, and a member of the First Methodist Church. Dr. LeCates is survived by his wife, Mrs. Jean Reid LeCates

BOOK REVIEWS

Bacillary Dysentery, Colitis and Enteritis:
By Joseph Felsen, M. D., Director of Medical Research, Bronx Hospital, New York; Director of International and Pan-American Dysentery Registry. Pp. 618, with 145 illustrations. Cloth. Price, \$6.00. Philadelphia: W. B. Saunders Company, 1945.

There are many unsolved problems concerning *Shigella* infections, but Felsen's book points the way to further chemical and laboratory research that may solve some of these problems. This is the first comprehensive

monograph on the subject to be published in the United States, and correlates for the first time the investigations of the clinician and the pathologist. The work is most thoroughly documented, over 2500 references being cited. It is divided into two main sections—acute infections, and chronic infections. Treatment, as well as diagnosis, is fully discussed. There is a lengthy appendix devoted to laboratory techniques, and kindred subjects. The illustrations are definitely helpful.

Felsen's book is unreservedly recommended.

EIGHTEENTH ANNIVERSARY HEBREW MEDICAL SOCIETY

Volume I, 1945, eighteenth anniversary issue of the *Harofe Haivre* (The Hebrew Medical Journal), edited by Moses Einhorn, M.D., is dedicated to the late Henrietta Szold, distinguished humanist and Zionist, who harnessed American Jewish womanhood in a great organization, Hadassah, which is responsible for the vast network of medical and sanitary installations in Palestine, making it the outstanding health center of the whole of the Middle East.

Mrs. Rose G. Jacobs, an intimate friend and co-worker, who was president of Hadassah for five years, presents a very interesting article entitled "Henrietta Szold's Contribution to the Health of the Body and Soul of Palestine"; Mrs. Tamar De Sola Pool, also former president of Hadassah for four years, gives a detailed account of the life and work of Miss Szold.

Dr. S. R. Kagan contributes an article of particular interest on the contribution of the pioneer physicians to the growth and development of the Zionist movement throughout the world. Since the Middle Ages the Jewish physician has exerted great influence on the communal life of Israel. They were not only the healers of the body and mind, but also leaders, statesmen, and diplomats who fought for the rights and freedom of their brethren.

There is also a detailed English section containing summaries and translations of all the articles for those readers who do not understand Hebrew.

1789—MEDICAL SOCIETY OF DELAWARE—1945

OFFICERS

PRESIDENT, I. Lewis Chipman, Wilmington
 FIRST VICE-PRESIDENT, William C. Deaknye, Smyrna
 SECOND VICE-PRESIDENT, Howard S. Riggan, Seaford
 SECRETARY, William H. Speer, Wilmington
 TREASURER, William W. Lattomus, Wilmington

COUNCILORS

Joseph S. McDaniel, Dover (1945) Joseph B. Waples, Georgetown (1946) Jerome D. Niles, Townsend (1947)

AMERICAN MEDICAL ASSOCIATION

DELEGATE: James Beebe, Lewes (1945)

ALTERNATE: Clyde C. Neese, Wilmington (1945)

STANDING COMMITTEES

COMMITTEE ON SCIENTIFIC WORK

William H. Speer, Wilmington
 A. H. Williams, Laurel
 H. W. Smith, Harrington

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

J. S. McDaniel, Dover
 James Beebe, Lewes
 E. R. Mayerberg, Wilmington

COMMITTEE ON PUBLICATION

W. Edwin Bird, Wilmington
 M. A. Tarumianz, Farnhurst
 William H. Speer, Wilmington

COMMITTEE ON MEDICAL EDUCATION

Edgar R. Miller, Wilmington
 Cecil J. Prickett, Smyrna
 Oliver V. James, Milford

COMMITTEE ON NECROLOGY

Dorsey W. Lewis, Middletown
 Stanley Worden, Dover
 Ulysses W. Hocker, Lewes

ADVISORY COMMITTEE, WOMEN'S AUXILIARY

E. L. Stambaugh, Lewes
 D. D. Burch, Wilmington
 C. E. Wagner, Wilmington
 C. J. Prickett, Smyrna
 James Beebe, Lewes

REPRESENTATIVE TO THE DELAWARE ACADEMY OF MEDICINE

W. O. LaMotte, Wilmington

COMMITTEE ON CANCER

J. F. Hynes, Wilmington
 Ira Burns, Wilmington
 D. M. Gay, Wilmington
 W. H. Kraemer, Wilmington
 C. J. Prickett, Smyrna
 H. V. P. Wilson, Dover
 O. V. James, Milford
 H. E. LeCates, Delmar
 C. B. Howard, Wilmington

COMMITTEE ON SYPHILIS

Edwin Cameron, Dover
 B. S. Vallett, Wilmington
 J. R. Elliott, Laurel

COMMITTEE ON TUBERCULOSIS

L. D. Phillips, Marshallton
 D. D. Burch, Wilmington
 L. B. Flinn, Wilmington
 C. C. Neese, Wilmington
 M. I. Samuel, Wilmington
 W. T. Chipman, Harrington
 C. B. Scull, Dover
 H. S. Riggan, Seaford
 A. C. Smoot, Georgetown

COMMITTEE ON MATERNAL AND INFANT MORTALITY

C. H. Davis, Wilmington
 Bruce Barnes, Seaford
 F. R. Everett, Dover

COMMITTEE ON MENTAL HEALTH

P. F. Elfeld, Farnhurst
 W. C. Deaknye, Smyrna
 James Beebe, Lewes

WOMAN'S AUXILIARY

Mrs. E. L. STAMBAUGH, President, Lewes

Mrs. G. C. McELPATRICK, Vice-Pres. for N. C. County, Wilmington
 Mrs. I. J. MACCOLLUM, Vice-Pres. for Kent County, Wyoming
 Mrs. JAMES BEEBE, Vice-Pres. for Sussex County, Lewes
 Mrs. S. W. RENNIE, Recording Secretary, Wilmington
 Mrs. K. S. BRICKLEY, Corresponding Secretary, Lewes
 Mrs. A. J. STRIKOL, Treasurer, Wilmington

NEW CASTLE COUNTY MEDICAL SOCIETY—1945

Meets Third Tuesday

L. B. FLINN, President, Wilmington.
 IRA BURNS, President-elect, Wilmington.

J. C. PIERSON, Vice-President, Wilmington.

E. R. MILLER, Secretary, Wilmington.

J. M. MESSICK, Treasurer, Wilmington.

Board of Directors and Nominating Committee: I. L. Chipman, 1945; A. J. Strikol, 1946; C. C. Neese, 1947.

Delegates: 1945: B. M. Allen, L. W. Anderson, T. H. Baker, L. B. Flinn, G. W. K. Forrest, C. L. Hudiburg, J. S. Keyser, W. W. Lattomus, J. D. Niles, C. E. Wagner. 1946: W. E. Bird, Ira Burns, G. H. Gehrmann, J. F. Hynes, L. J. Jones, E. R. Mayerberg, E. R. Miller, C. C. Neese, A. J. Strikol, M. A. Tarumianz.

Alternates: 1945: D. D. Burch, D. T. Davidson, C. H. Davis, J. R. Downes, D. Gay, R. J. Heather, J. W. Kerrigan, L. C. McGee, C. E. Maroney, L. D. Phillips. 1946: J. W. Butler, W. W. Ellis, Mildred Forman, Margaret I. Handy, T. V. Hynes, E. M. Krieger, J. M. Messick, J. C. Pierson, L. J. Rigney, P. R. Smith.

Board of Censors: L. J. Jones, 1945; L. J. Rigney, 1946; B. M. Allen, 1947; N. W. Voss, 1948; C. L. Hudiburg, 1949.

Program Committee: Ira Burns L. B. Flinn, J. C. Pierson.

Legislative Committee: W. O. LaMotte, M. A. Tarumianz, E. H. Lenderman, S. W. Rennie, A. D. King.

Public Relations Committee: L. C. McGee, W. H. Speer, G. W. K. Forrest, E. M. Krieger, R. A. Lynch.

Medical Economics Committee: W. E. Bird, D. D. Burch, J. D. Niles, W. M. Pierson, L. J. Rigney.

Necrology Committee: J. S. Keyser, P. A. Shaw, Mildred Forman.

Auditing Committee: J. W. Kerrigan, A. J. Heather, H. W. Gray.

KENT COUNTY MEDICAL SOCIETY—1945

Meets Second Wednesday

W. C. DEAKNYE, President, Smyrna.
 F. R. EVERETT, Vice-President, Dover.
 H. W. SMITH, Secretary-Treasurer, Harrington.

Delegates: I. J. MacCollum, William Marshall, Jr., F. R. Everett.

Alternates: S. M. D. Marshall, A. V. Gilliland, C. C. Fooks.

Censors: H. W. Smith, W. T. Chipman, H. V. P. Wilson.

DELAWARE ACADEMY OF MEDICINE—1945

Open 10 A. M. to 1 P. M.

Meeting Evenings

W. H. KRAEMER, President.
 E. R. MILLER, First Vice-President.
 J. D. BROWN, Second Vice-President.
 D. T. DAVIDSON, Sr., Secretary.
 J. M. MESSICK, Treasurer.

Board of Directors: C. M. A. Stine, J. K. Garrigues, W. S. Carpenter Jr., H. A. Carpenter, P. H. Gawthrop, Mrs. Ernest du Pont, H. G. Haskell, S. D. Townsend, L. B. Flinn, M. D.

DELAWARE PHARMACEUTICAL SOCIETY—1945

President: C. E. Johnson, Newark.
 First Vice President: L. E. Wilson, Georgetown.

Second Vice President: C. A. Hopkins, Dover.

Third Vice President: Thomas Davis, Wilmington.

Secretary: Albert Bunin, Wilmington.

Treasurer: Albert Dougherty, Wilmington.

Board of Directors: C. E. Johnson, H. S. Kiger, E. J. Elliott, H. P. Jones, V. L. Larson.

MEDICAL COUNCIL OF DELAWARE

Hon. Daniel J. Layton, President;
 Joseph S. McDaniel, M. D., Secretary;
 A. King Lotz, M. D.

SUSSEX COUNTY MEDICAL SOCIETY—1945

Meets Second Thursday—Even Months

H. S. RIGGIN, President, Seaford.
 R. S. LONG, Vice-Pres., Frankford.

A. H. WILLIAMS, Secretary-Treasurer, Laurel.

Delegates: H. E. LeCates, A. C. Smoot, H. N. Stayton, A. H. Williams.

Alternates: James Beebe, O. V. James, H. S. Riggan, J. B. Waples.

Censors: D. L. Bice, R. S. Brickley, H. S. LeCates.

DELAWARE STATE DENTAL SOCIETY—1945

MORRIS GREENSTEIN, President, Wilmington.

BLAINE ATKINS, First Vice-Pres., Millsboro.

FRANK M. HOOVES, Second Vice-Pres., Wilmington.

RICHARD H. STUCKLEN, Secretary, Wilmington.

HENRY S. KEAVENY, Treasurer, Wilmington.

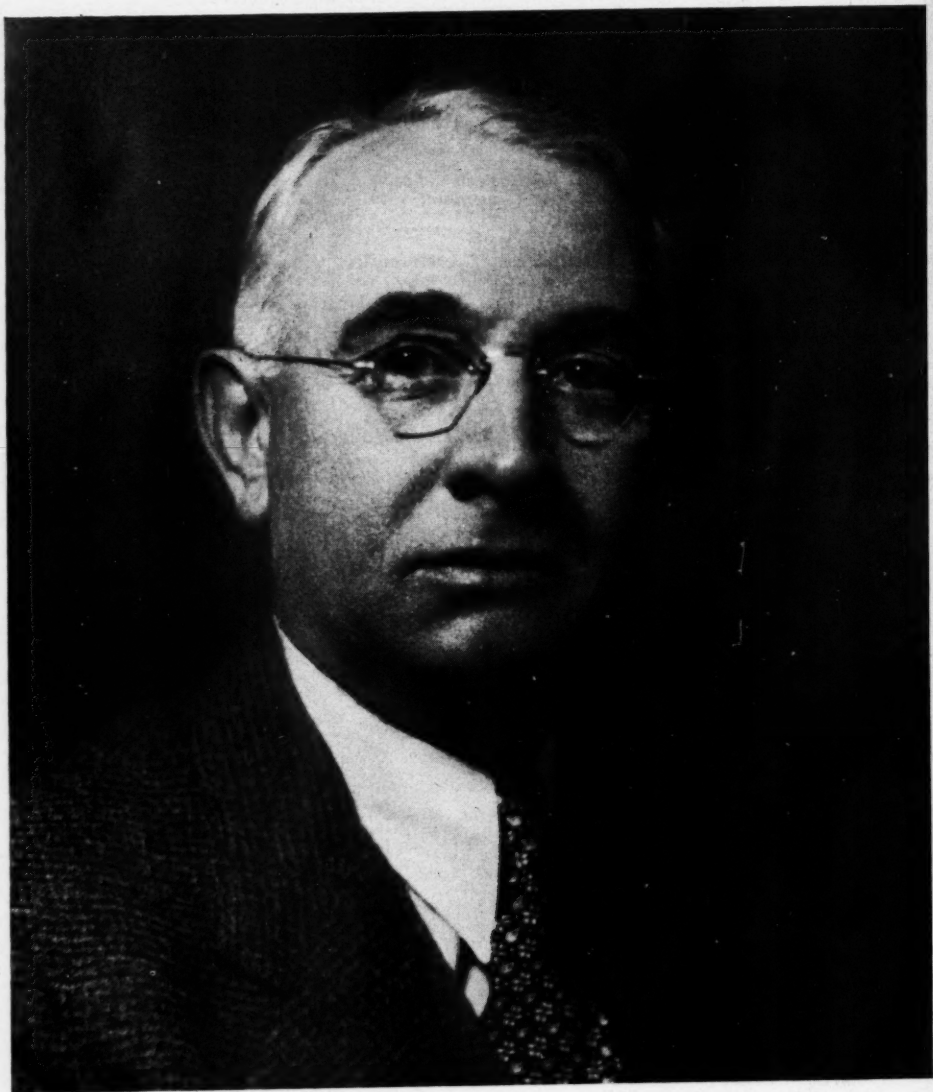
DELAWARE STATE BOARD OF HEALTH—1945

Bruce Barnes, M. D., President, Seaford; Mrs. F. G. Tallman, Vice-President, Wilmington; Mrs. Caroline Hughes, Secretary, Middletown; J. D. Niles, M. D., Middletown; W. T. Chipman, M. D., Harrington; W. H. Speer, M. D., Wilmington; W. B. Atkins, M. D., Millsboro; Mrs. C. M. Dillon, Wilmington; Edwin Cameron, M. D., Executive Secretary, Dover.

BOARD OF EXAMINERS.

MEDICAL SOCIETY OF DELAWARE

J. S. McDaniel, President and Secretary; Wm. Marshall, Assistant Secretary; W. E. Bird, W. T. Chipman, P. R. Smith.



I. LEWIS CHIPMAN, M. D.
PRESIDENT of the MEDICAL SOCIETY of DELAWARE
1945

